LISTING OF CLAIMS

The listing of claims provided below replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for testing a quality of communication data received from a system under test (SUT), comprising ~~the operations of~~:

storing reference test data comprising a plurality of data segments;

transmitting the reference test data through the SUT;

receiving a degraded version of the reference test data from the SUT, wherein degradation within the ~~received~~ degraded version of the reference test data is caused by transmission of the reference test data through the SUT ~~comprising a plurality of data segments~~;

locating the plurality of data segments in the degraded version of the reference test data;

~~corresponding data segments in the degraded test data to related data segments in the reference test data;~~ and

comparing each of the plurality of data segments in the degraded version of the reference test data to the corresponding data segment ~~segments~~ in the reference test data using a fixed point operation to evaluate a level of degradation within the degraded version of the reference test data.

2. (Currently Amended) A method as recited in claim 1, further comprising:

~~the operation of~~ normalizing the degraded version of the reference test data prior to locating the plurality of data segments.

3. (Currently Amended) A method as recited in claim 2, wherein the degraded version of the reference test data is normalized utilizing a fixed point Fourier transform.

4. (Currently Amended) A method as recited in claim 3, further comprising:

~~the operation of~~ applying a receive filter to the normalized degraded version of the reference test data utilizing a fixed point operation.

5. (Currently Amended) A method as recited in claim 4, wherein the reference test data is speech data.

6. (Currently Amended) A method as recited in claim 1, further comprising:

~~the operation of~~ generating a perceptual evaluation signal quality (PESQ) result based on a result of comparing each of ~~the comparison of~~ the plurality of data segments in the degraded version of the reference test data to the corresponding data segment ~~segments~~ in the reference test data.

7. (Currently Amended) A method as recited in claim 6, further comprising:

~~the operation of~~ storing the PESQ result to a quality of service (QoS) data file.

8. (Currently Amended) A system for testing a quality of communication data received from a system under test (SUT), comprising:

an encoder defined to encode ~~that encodes~~ reference test data, the reference test data comprising a plurality of data segments;

transmitter logic defined to transmit the encoded reference test data through the SUT;

receiver logic defined to receive a degraded version of the encoded reference test data from the SUT, wherein degradation within the degraded version of the encoded reference test data is caused by transmission of the encoded reference test data through the SUT;

a decoder defined to decode the ~~that decodes~~ degraded version of the encoded reference test data received from the SUT in real-time during testing of the SUT to obtain a degraded version of the reference test data~~, the degraded test data comprising a plurality of data segments~~; and

a fixed point based logic unit defined to compare each of a plurality of ~~that compares the~~ data segments in the degraded version of the reference test data to a corresponding data segment ~~segments~~ in the reference test data using a fixed point operation to evaluate a level of degradation within the degraded version of the reference test data.

9. (Currently Amended) A system as recited in claim 8, wherein the fixed point based logic is defined to locate each of the plurality of ~~locates~~ data segments in the degraded version of the reference test data.

10. (Currently Amended) A system as recited in claim 9, wherein the fixed point based logic is defined to correlate each of the plurality of ~~further corresponds~~ data segments in the degraded version of the reference test data to the corresponding ~~related~~ data segment ~~segments~~ in the reference test data.

11. (Currently Amended) A system as recited in claim 10, wherein the fixed point based logic is defined to normalize ~~normalizes~~ the degraded version of the reference test data using a fixed point Fourier transform prior to locating each of the plurality of ~~the~~

data segments in the degraded version of the reference test data ~~using a fixed point Fourier transform~~.

12. (Currently Amended) A system as recited in claim 11, wherein the fixed point based logic is defined to apply ~~applies~~ a receive filter to the normalized degraded version of the reference test data using ~~utilizing~~ a fixed point operation.

13. (Currently Amended) A system as recited in claim 12, wherein the reference test data is speech data.

14. (Currently Amended) A ~~computer program embodied on a~~ computer readable medium having program instructions stored thereon for testing a quality of communication data received from a system under test (SUT), comprising:

program instructions that store reference test data comprising a plurality of data segments;

program instructions that transmit the reference test data through the SUT;

program instructions that receive a degraded version of the reference test data from the SUT, wherein degradation within the ~~received~~ degraded version of the reference test data is caused by transmission of the reference test data through the SUT ~~comprising a plurality of data segments~~;

program instructions that locate the plurality of data segments in the degraded version of the reference test data;

~~program instructions that correspond data segments in the degraded test data to related data segments in the reference test data;~~ and

program instructions that compare each of the plurality of data segments in the degraded version of the reference test data to the corresponding data segment ~~segments~~ in

the reference test data using a fixed point operation to evaluate a level of degradation within the degraded version of the reference test data.

15. (Currently Amended) A computer readable medium ~~program~~ as recited in claim 14, further comprising:

program instructions that normalize the degraded version of the reference test data prior to locating the plurality of data segments in the degraded version of the reference test data.

16. (Currently Amended) A computer readable medium ~~program~~ as recited in claim 15, wherein the degraded version of the reference test data is normalized using ~~utilizing~~ a fixed point Fourier transform.

17. (Currently Amended) A computer readable medium ~~program~~ as recited in claim 16, further comprising:

program instructions that apply a receive filter to the normalized degraded version of the reference test data using ~~utilizing~~ a fixed point operation.

18. (Currently Amended) A computer readable medium ~~program~~ as recited in claim 17, wherein the reference test data is speech data.

19. (Currently Amended) A computer readable medium ~~program~~ as recited in claim 14, further comprising:

program instructions that generate a perceptual evaluation signal quality (PESQ) result based on the comparison of each of the plurality of ~~the~~ data segments in the

degraded version of the reference test data to the corresponding data segment ~~segments~~ in the reference test data.